PTO/SB/21 (08-03) **Application Number** 10/615,342 TRANSMITTAL Filing Date July 7, 2003 & IRA **FORM** First Named Inventor **David Scott Wishart** (to be used for all correspondence after initial filing) Art Unit 2857 **Examiner Name** Unassigned Total Number of Pages in This Attorney Docket Number Submission 080586-000200US ENCLOSURES (Check all that apply) Fee Transmittal Form ☐ Drawing(s) After Allowance Communication to Group Appeal Communication to Board of Appeals Fee Attached Licensing-related Papers and Interferences Petition Amendment/Reply Appeal Communication to Group (Appeal Notice, Brief, Reply Brief) Petition to Convert to a After Final Proprietary Information Provisional Application Power of Attorney, Revocation Affidavits/declaration(s) Change of Correspondence Address Status Letter Terminal Disclaimer Extension of Time Request Other Enclosure(s) (please identify below): Request for Refund USPTO forms SB08A & SB08B (five pages) Express Abandonment Request copies of 57 cited foreign patent publications and CD, Number of CD(s) non-patent references; Return Postcard Information Disclosure Statement Certified Copy of Priority The Commissioner is authorized to charge any additional fees to Deposit Document(s) Remarks Account 20-1430. Response to Missing Parts/ Incomplete Application Response to Missing Parts under 37 CFR 1.52 or 1.53 SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT Firm Townsend and Townsend and Crew LLP Kenneth R. Allen Individual Reg. No. 27,301 Signature Date 2003 CERTIFICATE OF TRANSMISSION/MAILING I hereby certify that this correspondence is being facsimile transmitted to the USPTO or deposited with the United States Postal Service with sufficient postage

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Typed or printed name	Roger Hylton			
Signature	B16-	Date	12/17/03	

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Attorney Docket No.: 080586-000200US Client Reference No.: 82611-5DD

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of:

DAVID SCOTT WISHART et al.

Application No.: 10/615,342

Filed: July 7, 2003

For: AUTOMATIC IDENTIFICATION OF COMPOUNDS IN A SAMPLE MIXTURE BY MEANS OF NMR SPECTROSCOPY

Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450 Examiner: Unassigned

Art Unit: 2857

SUPPLEMENTAL INFORMATION

DISCLOSURE STATEMENT UNDER 37 CFR

§1.97 and §1.98

Sir:

The references cited on attached form PTO/SB/08A and PTO/SB/08B are being called to the attention of the Examiner. Copies of the foreign patent publications and non-patent references are enclosed. It is respectfully requested that the cited references be expressly considered during the prosecution of this application, and the references be made of record therein and appear among the "references cited" on any patent to issue therefrom.

As provided for by 37 CFR §1.97(g) and (h), no inference should be made that the information and references cited are prior art merely because they are in this statement and no representation is being made that a search has been conducted or that this statement encompasses all the possible relevant information.

Respectfully submitted,

Kenneth R. Allen Reg. No. 27,301

TOWNSEND and TOWNSEND and CREW LLP Two Embarcadero Center, Eighth Floor San Francisco, California 94111-3834

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Application Number	10/615,342
Filing Date	July 7, 2003
First Named Inventor	David Scott Wishart
Art Unit	2857
Examiner Name	Unassigned
Attorney Docket Number	080586-000200US

	U.S. PATENT DOCUMENTS+				
	_	Document Number			
Examiner Initials*	Cite No.1	Number Kind Code ² (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
	1	2003/0023386	01-30-2003	Aranibar et al.	
	2	2002/0145425	10-10-2002	Ebbels et al.	
	3	6,063,026	05-16-2000	Schauss et al.	
	4	6,035,246	03-07-2000	Wagner	
	5	5,926,773	07-20-1999	Wagner	
	6	5,887,588	03-30-1999	Usenius et al.	
	7	5,878,746	03-09-1999	Lemelson	
	8	5,822,219	10-13-1998	Chen et al.	
	9	5,726,570	03-10-1998	Spraul et al.	
	10	5,710,713	01-20-1998	Wright et al.	
	11	5,685,300	11-11-1997	Kuenstner	
• •	12	5,668,373	09-16-1997	Robbat Jr., et al.	,
-	13	5,629,210	05-13-1997	Hercules et al.	
	14	5,618,734	04-08-1997	Niwa et al.	
	15	5,617,861	04-08-1997	Ross et al.	
	16	5,559,038	09-24-1996	Kolhouse et al.	
	17	5,517,856	05-21-1996	Hofmann et al.	
	18	5,470,750	11-28-1995	Bar-or	
	19	5,446,681	08-29-1995	Gethner	
	20	5,397,987	03-14-1995	Garritano	
	21	5,397,989	03-14-1995	Spraul et al.	
	22	5,338,687	08-16-1994	Lee	
	23	5,318,031	06-07-1994	Mountford et al.	
	24	5,313,406	05-17-1994	Kauppinen et al.	
	25	5,308,982	05-03-1994	Ivaldi et al.	
	26	5,283,036	02-01-1994	Hofmann et al.	
	27	5,261,405	11-16-1993	Fossel	
	28	5,258,712	11-02-1993	Hofmann et al.	
	29	5,247,175	09-21-1993	Schoen et al.	
-	30	5,231,031	07-27-1993	Szwergold et al.	
	31	5,229,716	07-20-1993	Demoment et al.	
	32	5,220,302	06-15-1993	Nunnally et al.	
	33	5,218,529	06-08-1993	Meyer et al.	
	34	5,213,101	05-25-1993	Fossel	
	35	5,207,715	05-04-1993	Fossel	
	36	5,198,766	03-30-1993	Spraul et al.	
	37	5,146,166	09-08-1992	Bartuska	··· ·· · · · · · · · · · · · · · · · ·
	38	5,124,267	06-23-1992	Humpel et al.	
	39	5,072,732	12-17-1991	Rapoport et al.	· · · · · · · · · · · · · · · · · · ·
	40	5,055,389	10-08-1991	Bar-Or et al.	
	41	5,046,846	09-10-1991	Ray et al.	

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INFORMATION DISCLOSURE STATEMENT BY APPLICANT

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Sheet 2 of 5

	Complete if Kn wn
Application Number	10/615,342
Filing Date	July 7, 2003
First Named Inventor	David Scott Wishart
Art Unit	2857
Examiner Name	Unassigned
Attorney Docket Number	080586-000200US

			U.S. PATENT DO	CUMENTS+	
		Document Number			
Examiner Initials*	Cite No.1	Number Kind Code ² (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Retevant Passages or Relevant Figures Appear
	42	5,041,789	08-20-1991	Keller et al.	
	43	5,015,954	05-14-1991	Dechene et al.	
	44	4,988,628	01-29-1991	Nanji	
	45	4,975,581	12-04-1990	Robinson et al.	
	46	4,940,055	07-10-1990	Brown	
	47	4,918,021	04-17-1990	Fossel	
	48	4,912,050	03-27-1990	Fossel	
	49	4,851,780	07-25-1989	Dejon et al.	
	50	4,728,889	03-01-1988	Gadian et al.	
	51	4,390,633	06-28-1983	Merilan et al.	
	52	4,081,742	03-28-1978	Hofer et al.	
	53	3,789,832	02-05-1974	Damadian	
				 	

				FOREIGN PA	TENT DOCUME	ENTS		
Examiner Initials*	Cite No. ¹	Forei	gn Patent Doo Number⁴	cument Kind Code ⁵ (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T ⁶
	54	EP0350546			01-17-1990	Advanced Techtronics		
	55	WO00/65366			11-02-2000	Lipomed, Inc.		
	56	WO00/51054			08-31-2000	Lipomed, Inc.		
	57	WO99/54751			10-28-1999	Sorland		
	58	WO98/39664			09-11-1998	Universidad Nacional et al.		
	59	WO97/47973		•	12-18-1997	The McLean Hospital Corp.		
	60	WO96/38083			12-05-1996	The John Hopkins University		
	61	WO94/20863			09-15-1994	Birkbeck College		
	62	WO93/03450			02-18-1993	North Carolina State Univ.		
	63	WO92/11807			07-23-1992	The Beth Israel Hospital		
	64	WO91/16852			11-14-1991	Chiscan AB		
	65	WO91/10128			07-11-1991	The Beth Israel Hospital		
		1						

Examiner Signature	Date Considered	

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INFORMATION DISCLOSURE Complete if Known Application Number 10/615,342 Filing Date July 7, 2003 STATEMENT BY APPLICANT First Named Inventor **David Scott Wishart** Art Unit 2857 (use as many sheets as necessary) Examiner Name Unassigned of 080586-000200US Sheet 5 Attorney Docket Number

	<u> </u>	NON PATENT LITERATURE DOCUMENTS Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item	
Examiner Initials *	Cite No. ¹	(book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	Т
•	66	"NMR Lipoprotein Subclass Analysis: NMR LipoProfile Research Service", LipoMed, Inc., 3009 New Bern Avenue, Raleigh, NC, 27610, http://www.lipoprofile.com/lipomed/ Products_Technology/R&D/R&D.htm [printed March 14, 2001]	
	67	"Frequently Asked Questions", LipoMed, Inc., 3009 New Bern Avenue, Raleigh, NC, 27610, http://www.lipoprofile.com/lipomed/FAQS/faq.html [printed March 14, 2001]	
	68	"Understanding the NMR LipoProfile", LipoMed, Inc., 3009 New Bern Avenue, Raleigh, NC, 27610 (2001).	
	69	"Varian Nuclear Magnetic Resonance Systems - Bayesian Software", Varian, Inc., 3120 Hansen Way, Palo Alto, CA 94304-1030, USA, http://www.varianinc.com/nmr/products/software/bayesianonepr.html [printed March 19, 2001]	
	70	"About INCA", http://www.bruker.com/nmr/Products/INCA/index.html [printed March 19, 2001], Bruker NMR, Bruker Analytik GMBH.	
	71	"INCA Siting", http://www.bruker.com/nmr/Products/INCA/inca_siting.html [printed March 19, 2001], Bruker NMR, Bruker Analytik GMBH.	
	72	"INCA Configurations", http://www.bruker.com/nmr/Products/INCA/inca_config.html [printed March 19, 2001], Bruker NMR, Bruker Analytik GMBH.	
	73	"About NMR Suite", http://www.bruker.com/nmr/Software/software.html [printed March 19, 2001], Bruker NMR, Bruker Analytik GMBH.	
	74	"NMR Suite - AMIX", http://www.bruker.de/analytic/nmr-dep/nmrsoftw/prodinfo/au_home/amix/index.htm [printed March 19, 2001], Bruker NMR, Bruker Analytik GMBH.	
	75	"AMIX Tutorial", http://www.bruker.de/analytic/nmr-dep/nmrsoftw/prodinfo/amix_aurelia/amix_tourTOC.html [printed March 19, 2001], Bruker NMR, Bruker Analytik GMBH.	
	76	"Who we are", http://www.acdlabs.com/company.html [printed March 19, 2001], Advanced Chemistry Development Inc., 90 Adelaide Street West, Suite 702, Toronto, Ontario, M5H 3V9, Canada.	
	77	"ACD/Labs - Spectral Laboratory", http://www.acdlabs.com/products/spec_lab [printed March 19, 2001], Advanced Chemistry Development Inc., Toronto, Ontario, Canada.	
, ,	78	"ACD/Combi NMR", http://www.acdlabs.com/products/spec_lab/complex_tasks/combinmr/tech.html [printed March 19, 2001], Advanced Chemistry Development Inc., Toronto, Ontario, Canada.	
	79	"ACD/Combi NMR: Overview - Combinatorial NMR Data Processing and AnalysisSoftware", http://www.acdlabs.com/products/spec_lab/complex_tasks/combinmr [printed March 19, 2001], Advanced Chemistry Development Inc., Toronto, Ontario, Canada.	
	80	"Combi NMR Interface", http://www.acdlabs.com/products/spec_lab/complex_tasks/combinmr/intr.html [printed March 19, 2001], Advanced Chemistry Development Inc., Toronto, Ontario, Canada.	
	81	"NMR Spectroscopy", http://www.acdlabs.com/products/spec_lab/nmr.html [printed March 19, 2001], Advanced Chemistry Development Inc., Toronto, Ontario, Canada.	
	82	"ACD/CNMR: Overview", http://www.acdlabs.com/products/spec_lab/predict_nmr/cnmr [printed March 19, 2001], Advanced Chemistry Development Inc., Toronto, Ontario, Canada.	
Examiner	<u> </u>	Date	

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INFORMATION DISCLOSUREMANT Complete if Known Application Number 10/615,342 Filing Date July 7, 2003 STATEMENT BY APPLICANT First Named Inventor **David Scott Wishart** Art Unit 2857 (use as many sheets as necessary) Examiner Name Unassigned 080586-000200US Sheet 5 Attorney Docket Number

		NON PATENT LITERATURE DOCUMENTS	
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	83	"ACD/HNMR: Overview", http://www.acdlabs.com/products/spec_lab/predict_nmr/hnmr [printed March 19, 2001], Advanced Chemistry Development Inc., Toronto, Ontario, Canada.	
	84	"Software Reviews: ACD/NMR Processor", http://www.acdlabs.com/publish/acd_nmr_proc.html [printed March 19, 2001], Advanced Chemistry Development Inc., Toronto, Ontario, Canada.	
	85	"CNMR Spectrum generator v4.5," http://ilab.acdlabs.com/webstore/dcnmrgen.htm [printed March 19, 2001], Advanced Chemistry Development Inc., Toronto, Ontario, Canada.	
	86	"ACD/2D NMR Predictor: Overview", http://www.acdlabs.com/products/spec_lab/predict_nmr/2d_nmr [printed March 19, 2001], Advanced Chemistry Development Inc., 90 Adelaide Street West, Suite 702, Toronto, Ontario, M5H 3V9, Canada.	
	87	"ACD/NMR Manager, Version 5.0 for Windows, Application Note", 2001, Advanced Chemistry Development Inc., Toronto, Ontario, Canada.	
	88	BAMFORTH et al "Diagnosis of inborn errors of metabolish using 1H NMR spectroscopic analysis of urine," J. Inher. Metab. Dis., SSIEM and Kluwer Academic Publishers, printed in the Netherlands, 22:297-301 (1999).	
	89	BRUST "NMR Chemical Shifts", Nuclear Magnetic Resonance, University of Southern Mississippi, http://www.psrc.usm.edu/macrog/nmrsft.htm [printed November 28, 2000].	
-	90	BRUST "Nuclear Magnetic Resonance Spectroscopy", University of Southern Mississippi, http://www.psrc.usm.edu/macrog/nmr.htm [printed November 28, 2000].	
	91	BUSZKO " A World Wide Web Interface to an NMR Spectrometer," available at http://micro.ifas.ufl.edu (1997, 2003).	
	92	EMSLEY et al. "Magnetic Resonance, Historical Perspective," Encyclopedia of Spectroscopy and Spectrometry, Academic Press: pp. 1232-1240 (2000).	
	93	FREEDMAN et al. "Relation of Lipoprotein Subclasses as Measured by Proton Nuclear Magnetic Resonance Spectroscopy []," Reprint from Arteriosclerosis, Thrombosis and Vascular Biology 18:1046-1053 (1998).	
	94	GOLOTVIN et al."Improved Baseline Correction of FT NMR Spectra", NMR Newsletter, October 1999, http://www.acdlabs.com/publish/nmr_ar.html (visited October 30, 2001), Canada, pp. 1-3, Advanced Chemistry Development Inc., Canada.	
	95	HOLMES et al "Proton NMR analysis of plasma from renal failure patients: evaluation of sample preparation and spectral-editing methods," Journal of Pharmaceutical & Biomedical Analysis 8:955-958 (1990).	
	96	HOLMES et al,"Automatic Data Reduction and Pattern Recognition Methods for Analysis of 1H Nuclear Magnetic Resonance Spectra of Human Urine," Analytical Biochemistry 220:284-296 (1994).	
	97	HORNAK "The Basics of NMR," available at http://www.cis.rit.edu/htbooks/nmr (1997, 2002).	
	98	LINDON et al. "Biofluids Studied by NMR," In Encyclopedia of Spectroscopy and Spectrometry. Academic Press, pp. 98-116 (2002).	
	99	LINDON et al. "Multicentre Assessment of Small Molecule Quantitation in Human Blood Plasma Using 1H NMR Spectroscopy," Journal of Magnetic Resonance Analysis, England, pp. 66-74(1996).	
Examiner		Date	

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1 Applicant's unique citation designation number (optional). Applicant is to place a check mark here if English language Translation is attached.

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(use as many sheets as necessary) Sheet of 5

	Complete if Known	
Application Number	10/615,342	
Filing Date	July 7, 2003	
First Named Inventor	David Scott Wishart	
Art Unit	2857	
Examiner Name	Unassigned	
Attorney Docket Number	080586-000200US	

		NON PATENT LITERATURE DOCUMENTS	
Examiner Initials *	Cite No.1	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	Т;
	100	LINDON et al. "NMR Spectroscopy of Biofluids," Annual Reports on NMR Spectroscopy, Academic Press, ISBN 012505338X, 38:1-88 (1999).	
	101	NICHOLSON et al "750 MHz 1H and 1H-13C NMR Spectroscopy of Human Blood Plasma," Analytical Chemistry, 67:793-811 (1995).	
	102	NICHOLSON et al. "'Metabonomics': understanding the metabolic responses of living systems [] via multivariate statistical analysis of biological NMR spectroscopic data," Xenobiotica, UK, 29:1181-1189 (1999).	
	103	"Nuclear Magnetic Resonance with a 300 MHz Fourier Transform Spectrometer," Modern Physics Laboratory Manual, Middlebury College, Dept. of Physics, USA, http://www.middlebury.edu/~PHManual/nuclearmag.html (1992, 1993, 2001).	
	104	PRESS et al. "Parabolic Interpolation and Brent's Method in One Dimension," <u>Numerical Recipes in C - The Art of Scientific Computing</u> , Second edition, Cambridge University Press, pp. 402-405, USA (1992).	
	105	ROBERTSON et al. "Metabonomics: Evaluation of Nuclear Magnetic Resonance (NMR) and Pattern Recognition Technology for [] Toxicants," Toxicological Sciences 57:326-337 (2000).	
-	106	SMITH et al." Nuclear Magnetic Resonance Spectroscopy," Analytical Chemistry, Vol. 34:509R-518R (1995).	
	107	SPRAUL et al "Flow Injection Proton [NMR] Spectroscopy Combined With Pattern Recognition Methods []," Analytical Communications, Royal Society of Chemistry (UK) 34:1-3 (1997).	
	108	SYKES et al. "Checking pH without an Electrode", The NMR Newsletter, 966 Elsinore Court Palo Alto, CA, 94303, 30 June 1998 (received 7/3/98), 479-11 and 479-12 (1998).	
	109	WILLIAMS et al. "The ABC of Metabonomics: Automated Baseline Correction," March 11- 16, 2001, Orlando, Florida, USA, 42nd ENC, ACD Users Meeting, pp. 1-8 (2001).	
	110	WISHART et al. "Magnetic Resonance Diagnostics: A New Technology for High-Throughput Clinical Diagnostics," Clin Chem 47:1918-1921 (2001).	
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Examiner	Date	
Signature	Considered	

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